Sub Spec Approved for Entry

SPECIFICATION

TITLE

"CENTRIFUGE FOR THE PURIFICATION OF LUBRICATING OIL OF AN INTERNAL-COMBUSTION ENGINE"

BACKGROUND OF THE INVENTION

The present invention relates to a centrifuge for the purification of lubricating oil of an internal-combustion engine, with a housing with a removable cover, with a housing-fixed shaft arranged in the housing and with a centrifuge rotor, which is rotatably mounted on the shaft and is replaceable, whereby the shaft is hollow at least in its lower part and forms in its hollow inside a section of a lubricating oil supply canal, which is in flow connection with the inside of the centrifuge rotor mounted on the shaft over at least one orifice opening.

Centrifuges of the type initially specified are usually used as partial flow filters beside a filter cartridge. Thereby usually only a partial oil volume stream flows over the centrifuge, which is approximately 10% of the entire oil flow, which flows through the filter cartridge. In order to keep flow resistances low, the lubricating oil supply canal to the centrifuge is usually designed with a large cross section. The throttling of the oil volume stream through the centrifuge takes place basically exclusively by recoil nozzles provided at the centrifuge rotor, which rotate the centrifuge rotor by means of the lubricating oil flowing through. If the centrifuge rotor is erroneously not assembled, which can inadvertently happen for example during careless work at a maintenance service, this throttling is omitted and a very large partial oil volume stream flows through the bypass flow path of the centrifuge. Thus this very large partial oil volume stream is removed from the oil circuit and is no longer available for the lubrication of the appropriate internal-combustion engine. The operational reliability of the appropriate internal-combustion engine is thereby seriously endangered because a sufficient lubrication is no longer ensured.

It is therefore the task of the present invention to create a centrifuge of the type initially specified, with which it is ensured that even with the centrifuge rotor erroneously not assembled a sufficiently large oil volume stream is always available for the lubrication of the appropriate internal-combustion engine.